

Work Order ID 164951

Thursday, August 10, 2017

Page 1

Item ID: _____ **Revision ID:** _____**Item Name:** _____**Draw Nbr:** _____**Start Date:** 8/10/2017 10:**Start Qty:** 1.0000**Revision Nbr** _____**Required Date:** 8/10/2017 10:**Reqd Qty:** 1.0000**Reference:** ECN 17-608**Cust Item ID:** _____**Customer ID:** _____**Description:** UPDATE PAPER WORK PER ECN 17-608 : D119-646
DOCUMENT AFFECTED : DSI 9734 REV. C**Sales Order:** _____

Approvals: **Process Plan:** DAS 21 9-89 **Date:** AUG 10 2017 **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Hours

Sequence	Work Center	Operation	Set Up	Run	Tool ID	Tool #	Plan	Accept	Reject	Reject	Insp.
----------	-------------	-----------	--------	-----	---------	--------	------	--------	--------	--------	-------

DAS
28
9-89

AUG 16 2017

DAS
21
9-89

AUG 17 2017

QC 21- 17/9/5

List Lots

Page 1 of 4

Thursday, August 03, 2017 8:58:32 AM

Criteria : Item ID: 'D119-646-111', 'D119-646-112', 'D119-646-113', 'D119-646-114', 'D119-646-141', 'D119-646-143', 'D119-646-211', 'D119-646-212', 'D119-646-214', 'D119-646-241', 'D119-646-243', 'D119-646-243RevB', 'D119-646-251', 'D119-646-311', 'D119-646-314', 'D119-646-451', 'D119-646-452' All Locations All

Warehouses All Quantity

Item ID	Warehouse ID	Lot Number	Last Trans Date	Lot Qty	Shelf Life Dt	Type Code	Comments
Item Name D119-646-111	Location ID Main Warehouse	155019	3/29/2017	1.0000	DAS 28 9-89	QC21	SKID IS AT CHG004 DO NOT SALE TO AGUSTA
AW119 Skidtube with Standard Wearplates & Wearpads - LH	FG084						
	Main Warehouse	155020	3/29/2017	1.0000	DAS 28 9-89	CHG004	SKID IS AT CHG004 DO NOT SALE TO AGUSTA
	FG084						
		Total:		2.0000			
D119-646-112	Main Warehouse	159007	4/21/2017	1.0000	DAS 28 9-89	CHG004	SKID IS AT CHG004 DO NOT SALE TO AGUSTA
AW119 Skidtube with Standard Wearplates & Wearpads - RH	FG084						
	Main Warehouse	159008	4/21/2017	1.0000	DAS 28 9-89	CHG004	SKID IS AT CHG004 DO NOT SALE TO AGUSTA
	FG084						
		Total:		2.0000			
D119-646-114	OFFSHORE	129388	3/16/2017	1.0000		QC21	
AW119 Skidtube with Wearplates & Wearpads, Float Compatible - RH	FG						
		Total:		1.0000			
D119-646-143	OFFSHORE	129468	7/25/2017	1.0000		QC21	
AW119 Repl. Skidtube with Wearplates & Wearpads, Float Comp. - Fits LH or RH	FG						
		Total:		1.0000			
D119-646-211	Main Warehouse	117257	5/3/2016	1.0000	DAS 28 9-89	CHG004	SKID IS AT CHG004 DO NOT SALE TO AGUSTA
AW119 Skidtube with Heavy Duty Wearplates - LH	FG084						

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

List Lots

Thursday, August 03, 2017 8:58:32 AM

Page 2 of 4

Criteria : Item ID: 'D119-646-111', 'D119-646-112', 'D119-646-113', 'D119-646-114', 'D119-646-141', 'D119-646-143', 'D119-646-211', 'D119-646-212', 'D119-646-214', 'D119-646-241', 'D119-646-243', 'D119-646-243RevB', 'D119-646-251', 'D119-646-311', 'D119-646-314', 'D119-646-451', 'D119-646-452' All Locations All Warehouses All Quantity

Item ID	Warehouse ID	Lot Number	Last Trans Date	Lot Qty	Shelf Life	Type Code	Comments
D119-646-211	Main Warehouse	117258	5/3/2016	1.0000	DAS 28 9-89	QC21 AUG 16 2017 CHG004	SKID IS AT CHG004 DO NOT SALE TO AGUSTA
AW119 Skidtube with Heavy Duty Wearplates - LH	FG084						
	Main Warehouse	129041	5/3/2016	1.0000	DAS 28 9-89	QC21 AUG 16 2017 CHG004	SKID IS AT CHG004 DO NOT SALE TO AGUSTA
	FG084						
	Main Warehouse	133010	5/3/2016	1.0000	DAS 28 9-89	QC21 AUG 16 2017 CHG004	SKID IS AT CHG004 DO NOT SALE TO AGUSTA
	FG084						
	Main Warehouse	133011	5/3/2016	1.0000	DAS 28 9-89	QC21 AUG 16 2017 CHG004	SKID IS AT CHG004 DO NOT SALE TO AGUSTA
	FG084						
Total:				5.0000			
D119-646-212	Main Warehouse	124435	3/30/2017	1.0000	DAS 28 9-89	QC21 AUG 16 2017 CHG004	SKID IS AT CHG004 DO NOT SALE TO AGUSTA
AW119 Skidtube with Heavy Duty Wearplates - RH	FG084						
	Main Warehouse	129042	3/30/2017	1.0000	DAS 28 9-89	QC21 AUG 16 2017 CHG004	SKID IS AT CHG004 DO NOT SALE TO AGUSTA
	FG084						
	Main Warehouse	129043	3/30/2017	1.0000	DAS 28 9-89	QC21 AUG 16 2017 CHG004	SKID IS AT CHG004 DO NOT SALE TO AGUSTA
	FG084						
	Main Warehouse	129044	3/30/2017	1.0000	DAS 28 9-89	QC21 AUG 16 2017 CHG004	SKID IS AT CHG004 DO NOT SALE TO AGUSTA
	FG084						
	Main Warehouse	129045	3/30/2017	1.0000	DAS 28 9-89	QC21 AUG 16 2017 CHG004	SKID IS AT CHG004 DO NOT SALE TO AGUSTA
	FG084						

Thursday, August 03, 2017 8:58:32 AM

List Lots

Page 2 of 4

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
BAC 8S 88-1 BAC 8S 88-1 BAC 8S 88-1 BAC 8S 88-1								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : _____									

List Lots

Thursday, August 03, 2017 8:58:32 AM

Page 3 of 4

Criteria : Item ID: 'D119-646-111', 'D119-646-112', 'D119-646-113', 'D119-646-114', 'D119-646-141', 'D119-646-143', 'D119-646-211', 'D119-646-212', 'D119-646-214', 'D119-646-241', 'D119-646-243', 'D119-646-243RevB', 'D119-646-251', 'D119-646-311', 'D119-646-314', 'D119-646-451', 'D119-646-452' All Locations All Warehouses All Quantity

Item ID	Warehouse ID	Lot Number	Last Trans Date	Lot Qty	Shelf Life Dt	Type Code	Comments
D119-646-212	Main Warehouse	130322	3/30/2017	1.0000	DAS 28 9-89	QC21 AUG 15 2017 CHG004	SKID IS AT CHG004 DO NOT SALE TO AGUSTA
AW119 Skidtube with Heavy Duty Wearplates - RH FG084							
Total:				6.0000			
D119-646-214	OFFSHORE	112715	5/3/2016	1.0000		QC21 CHG005	
AW119 Skidtube with Heavy Duty Wearplates, Float Compatible - RH FG							
Total:				1.0000			
D119-646-243	OFFSHORE	129394	5/4/2016	1.0000		QC21 CHG004	
AW119 Repl. Skidtube with Heavy Duty Wearplates, Float Compatible - Fits LH or RH FG							
Total:				1.0000			
D119-646-251	Main Warehouse	118389	12/19/2014	2.0000	DAS 28 9-89	QC21 AUG 16 2017 CHG002	
AW119 Heavy Duty Wearplate - Fits LH or RH FG128b							
Total:				2.0000			
D119-646-311	Main Warehouse	152786	4/20/2017	1.0000	DAS 28 9-89	QC21 AUG 16 2017 CHG001	
Ground Handling ST636a							
Total:				1.0000			
D119-646-314	Main Warehouse	163572	7/19/2017	2.0000	DAS 28 9-89	QC21 AUG 16 2017 CHG002	
Skidtube Protector, RH FG128b							
Total:				2.0000			
D119-646-451	Main Warehouse	62539	6/30/2014	1.0000	DAS 28 9-89	QC21 AUG 16 2017 CHG001	
OEM Replacement Wearplate & Wearpad LH FG034							

Thursday, August 03, 2017 8:58:32 AM

List Lots

Page 3 of 4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : ☐									

List Lots

Thursday, August 03, 2017 8:58:32 AM

Page 4 of 4

Criteria : Item ID: 'D119-646-111', 'D119-646-112', 'D119-646-113', 'D119-646-114', 'D119-646-141', 'D119-646-143', 'D119-646-211', 'D119-646-212', 'D119-646-214', 'D119-646-241', 'D119-646-243', 'D119-646-243RevB', 'D119-646-251', 'D119-646-311', 'D119-646-314', 'D119-646-451', 'D119-646-452' All Locations All Warehouses All Quantity

Item ID	Warehouse ID	Lot Number	Last Trans Date	Lot Qty	Shelf Life Dt	Type Code	Comments
Item Name	Location ID				Lot Code		
D119-646-452	Main Warehouse	62540	Total:	1.0000	DAS		
OEM Replacement	FG034		6/30/2014	1.0000	28	QC21	AUG 16 2017
Wearplate & Wearpad RH					9-89	CHG001	
			Total:	1.0000			

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

ENGINEERING CHANGE NOTICE

DART AEROSPACE LTD

Date:	17.07.31	Job No.:	PI17-646-07	ADR Yes/No:	N	ADR Date:		ECN #:	17- 601
Product No.:	D119-646	Created By:	VS	Approved By:					
Product Name:	Skidtube	Checked By:							

Distribution	Reqd	Resp	Initial / Date (YY/MM/DD)	Distribution	Reqd	Resp	Initial / Date (YY/MM/DD)
Director of Operations	Y	JLM		DQA / QA Coord.	Y	PS / ED	
Production Planning Man. / Production Planner	Y	MP		QC Coordinator	Y	PD	
Supply Chain Director / Purchasing Manager	N	RA / CL		Customer Support	Y	SW / LM	
Production Engineering Coord.	Y	DD		Customer Technical Support	Y	MB / ML	
Production Engineering Coord.	N	DL		Marketing	Y	WR	
Customer Order Processing	N	SL		Prod. Man. Solution Provider	Y	HM	

Reason for Change:

Compatibility of D119-646-313/-314 with Dart Float Skid tubes

Documents Affected:

DSI 9734 Rev. C

IF APPLICABLE: NCR: PAR: CAR: CIR: 17-101 URF:

PAPERWORK UPDATE ☒ PARTS MUST COMPLY ☐ PREVIOUS PARTS SATISFACTORY ☒

#	Quality Assurance Actions	Reqd	Resp	Notes	Complete
1	Notify Previous Customers	N			
2	Notify Eurocopter France	N			
3	Notify Augusta Westland (Leonardo)	Y	MB	Notify AWPC	
4	Manufacturing Licensing Agreement Update	N			

#	Engineering Actions	Reqd	Resp	Notes	Complete
5	Required Documents/Drawings/Item ID's Under Review (URF)	N			
6	Update Master Document List (MDL)	N		To be released at later date	
7	Update Document Record (DR)	N			
8	Update Product Compatibility Matrix	N			
9	Notify TC / FAA of Change (eg. ICA, 8110-3)	N			
10					

#	Document Control Actions	Reqd	Resp	Notes	Complete
11	Move / Update Electronic Files / Design Journal	Y	KJ		17.08.02
12	Update Product Specification Files (Bluefiles)	Y	KJ		17.08.02
13	Update Approved/Preliminary Dwg PDF Files	Y	KJ		17.08.02
14	Update Product Development Summary (STC applications)	N			
15	Update QSI 021 (TC/FAA STC) and/or STC Approval List	N			
16	Create/Update Parts / STC Database	N			
17	Update / Verify Airworthiness Release Certificate Database	N			
18	Create / Update Change Record Form / Item Card Database	N			
19	Create / Update Packaging Process Plan (PPP)	N			
20	Red Decals required on Packaging Process Plan (PPP)?	N			
21	Update Controlled Supplier Documents (Qpulse) Database	N			
22	Update Grey Project Binder / Electronic Project Folder	Y	KJ		17.08.02
23	Update D-Part / M-Drawing / DSI / DEO Master Binders	Y	KJ		17.08.02
24	Update "Royalty Paid to" attribute (Parts sold under Dart USA STC's)	N			
25					

Description / Action:

-Update BOMs and routes

B/64951

DAE
21
9-89

AUG 10 2017

POWE

ECN Verified & Complete: Date: